

REMARKS

Claims 1-19, 21-48, 67-69 and 85-142 are pending. By this Amendment, claims 1, 7, 18, 26-28, 38, 46, 67, 68, 91, 101, 111, 121 and 136 are amended. The independent claims are amended to even more clearly distinguish over the applied reference. No new matter is added.

All pending claims stand rejected on the grounds of non-statutory obviousness-type double patenting over claims 1-26 of U.S. Patent No. 6,909,492 (Omura). This rejection is rendered moot by the attached Terminal Disclaimer.

All pending claims stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,512,631 (Shafer et al.). This rejection is respectfully traversed.

Independent claims 1, 26-28, 46, 67 and 68 (that is, all independent claims) have been amended to recite that the optical system is a telecentric optical system on both sides (that is, on the side of the first surface and the side of the second surface, as recited in independent claims 1, 26-28, 67 and 68, or on the pattern side and the workpiece side, as recited in claim 46). Shafer et al. does not disclose or suggest an optical system, as recited in Applicants' claims, that is telecentric on both sides. Accordingly, all pending claims are patentable over Shafer et al.

The Office Action does not address this feature, previously recited in some of Applicants' dependent claims (for example, dependent claims 7 and 18) when the Office Action discusses Shafer et al. This is because Shafer et al. does not disclose or suggest such a both-side telecentric optical system. Shafer et al. discloses imaging optical systems for inspecting a specimen, the optical systems consisting of a catadioptric objective (102, 202) and an image forming optics (103, 204). Figs. 3-9 show the catadioptric objective corresponding to the catadioptric objective (102, 202) of Figs. 1 and 2. Each of the catadioptric objectives of Figs. 1-9 is an infinity optical system that forms a parallel optical path at the exit end of the system based on light from the specimen, and which does not form an image of the specimen at the exit

end of the specimen. Accordingly, Shafer et al.'s catadioptric objectives of Figs. 1-9 must be combined with the image forming optics (103, 204), shown in Figs. 10-13, to form an image.

However, the combined optical system of the catadioptric objectives of Figs. 1-9 and the image forming optics of Figs. 10-13 is not a both-side telecentric optical system. The light beam in the detector side optical path of the combined optical system is shown in Figs. 10-13 and is not telecentric. Moreover, Shafer et al.'s optical system does not require both side telecentricity because changes in the detector's axial position do not occur. Accordingly, Shafer et al. does not disclose or suggest a both-side telecentric system because Shafer et al.'s optical system does not require both side telecentricity.

Withdrawal of the rejection is requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Terminal Disclaimer

Petition for Extension of Time

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